

CONSTRUCTION, INC

7855 South 206th Street, Kent, WA 98032 • Phone: 253-872-7222 •Fax: 253-872-7277

FIRE SPRINKLER EQUIPMENT SUBMITTAL

FOR

Greenpoint Suite 4250
4100 Carillon Point
Kirkland, WA

Archer Job # S14-39



Models F1 Series **Standard Response Standard Spray**

Model F156 Sprinkler Types

Standard Upright Standard Pendent Conventional Vertical Sidewall Horizontal Sidewall

Model F156 Recessed Sprinkler Types

Pendent/F1/F2/FP Horizontal Sidewall

Model F142, F1XLH & F128 Sprinkler Types

Standard Upright Standard Pendent

Model F142, F1XLH & F128 Recessed Sprinkler **Types**

Pendent/F1/F2/FP

Approval Organizations

- 1. Underwriters Laboratories Inc. and certified for Canada (cULus)
- 2. Factory Mutual Approvals (FM)
- 3. Loss Prevention Council (LPCB, UK)
- 4. VdS Schadenverhütung GmbH

UL Listing Category

Sprinklers, Automatic & Open (VNIV)

Product Description

The F156, F142, F1XLH & F128 Series Glass Bulb Sprinkler combines the durability of a standard sprinkler with the attractive low profile of a decorative sprinkler. Whether installed on exposed piping or in an office ceiling, it is functional and attractive.

Beautifully versatile is the description for the Reliable Models F156, F142, F1XLH & F128 Series Recessed glass bulb sprinkler. Recessing the F156, F142, F1XLH & F128 Series enhances its already low profile decorative appearance, and facilitates a rapid and perfect installation.

The recessed escutcheon of the Models F156, F142, F1XLH & F128 are highly adjustable. The two piece construction makes field installation a very easy and rapid task. This also allows ceiling panels to later be removed without shutting down the fire protection system, thus facilitating maintenance of above ceiling services.





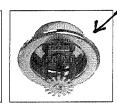


Pendent

Conventional



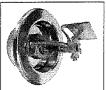




Vertical Sidewall

Horizontal Sidewall

Pendent(F1)F2







Recessed Horizontal Sidewall

Recessed Pendent/FP

XLH Upright









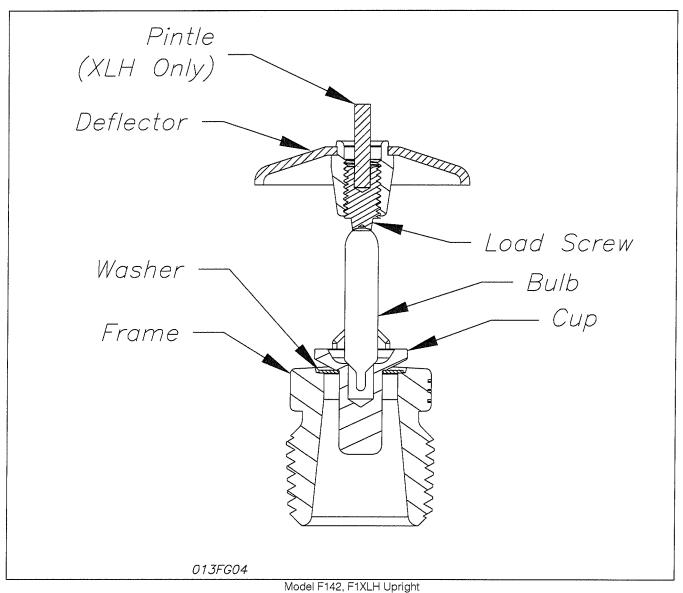
Pendent F1/F2

XLH Recessed Pendent FP

The F156, F142, F1XLH & F128 Series Automatic Sprinkler utilizes a 5.0 mm frangible glass bulb. The glass bulb consists of an accurately controlled amount of special fluid hermetically sealed inside a precisely manufactured glass capsule. This glass bulb is specially constructed to provide fast thermal response.

At normal temperatures, the glass bulb contains the fluid in both the liquid phase and in the vapor phase. The vapor phase can be seen as a small bubble. As heat is applied, the liquid expands forcing the bubble smaller and smaller as the liquid pressure increases. Continued heating forces the liquid to push out against the bulb, causing the glass to shatter, opening the waterway and allowing the deflector to distribute the discharging water.

The F156, F142, F1XLH & F128 Series Sprinkler temperature rating is identified by the color of the glass bulb capsule as well as frame color where applicable.



Technical data:

Models	Discharge Coefficient	Response	Thread Size	Max. Working Pressure	Min. Working Pressure	Temperature Rating	Finish
F156	K 5.6						
F142 F1XLH	K 4.2	Standard	1/2" NPT (R1/2)	175 PSI	7 PSI	See "Temperature Ratings" Table	See "Finish Table"
F128	K 2.8				ı	Trainings rabio	

Material Data:								
Frame	Deflector	Load Screw	Pintle	Cup	Washer	Bulb		
DZR Brass QM Brass	CDA Alloy 260, CDA Alloy 220 or CDA Alloy 510	CDA Alloy 360 or CDA Alloy 544	CDA Alloy 360 or CDA Alloy 544	CDA Alloy 651 or CDA Alloy 693	Nickel Alloy 440 or Alloy 360 coated with PTFE Adhesive Tape	Glass		

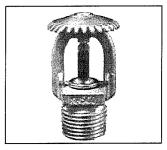
Model F156, Upright, Pendent & Conventional Sprinklers Model F142, F1XLH & F128 Upright & Pendent Sprinklers

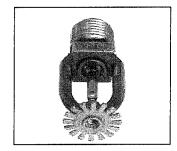
Installation Wrench: Model D Sprinkler Wrench

Installation Data:

Nominal Orifice	Thread	Nominal K Factor		Sprinkler	Approval	Sprinkler Identification Number (SIN)		
	Size	US	Metric	Height	Organization	Upright	Pendent	
	Standard	-Upright (SSU) and p	oendent Deflec	tors Marked to Indi	cate Position		
1/2" (15mm) ⁽¹⁾	1/2" NPT (R1/2)	5.6	80	2.25" (57mm)	1,2,3,4	RA1325(2)(3)(5)(6)	RA1314 ⁽²⁾⁽³⁾⁽⁵⁾⁽⁶⁾	
7/16" (10mm)	1/2" NPT (R1/2)	4.2	60	2.25" (57mm)	1	RA1323 ⁽²⁾⁽⁶⁾	RA1313 ⁽⁶⁾	
3/8 (10mm)	1/2" NPT (R1/2)	2.8	40	2.25" (57mm)	1,2	RA1321 ⁽²⁾⁽⁶⁾	RA1311 ⁽⁶⁾	
		Conve	ntional-Ins	tall in Upright	or Pendent Positior	1		
15mm ⁽¹⁾	1/2" NPT (R1/2)	5.6	80	57mm	3, 4	RA1375 ⁽⁵⁾		

⁽¹⁾ Refer to Bulletin 024 for Special Response Sprinklers (F1S5-56)







Pendent

Conventional

Model F156, F142, F1XLH & F128 Recessed Pendent Sprinklers(1)

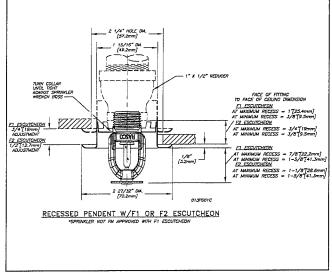
Installation Wrench: Model GFR2 Sprinkler Wrench

Installation Data:

Nominal	Thread	K Factor		Sprinkler	Sprinkler Identification Number
Orifice	Size	US	Metric	Height	(SIN)
1/2" (15mm)	1/2" NPT (R1/2)	5.6	80	2.25" (57mm)	RA1314 ⁽²⁾
7/16" (10mm)	1/2" NPT (R1/2)	4.2	60	2.25" (57mm)	RA1313 ⁽²⁾
3/8" (10mm)	1/2" NPT (R1/2)	2.8	40	2.25" (57mm)	RA1311 ⁽²⁾

⁽¹⁾ Refer to escutcheon data table for approvals & dimensions

⁽²⁾ Electroless Nickel PTFE (Teflon®)* Plated - cULus listed Corrosion Resistant





Model F156, F142, F1XLH & F128 FP

⁽²⁾ cULus Listed corrosion resistant (Polyester coated) sprinkler.

⁽³⁾ Polyester coated FM Approved sprinkler.

⁽⁵⁾ Polyester coated LPCB & VdS approved sprinkler RA1325, RA1314 & RA1375. (6) Electroless Nickel PTFE (Teflon®)* Plated - UL listed Corrosion Resistant

^{1/2&}quot; REDUCER 2 5/8" DIA. [66.7mm] HOLE IN CEILING CEILING AT MAXIMUM RECESS = 9/16[14.3mm] AT MINIMUM RECESS = 1[25.4mm] ½"[50.8mm] ADJUSTMENT RECESSED PENDENT W/FP ESCUTCHEON 01.5FC028

^{*}DuPont Registered Trademark

Model F156 Vertical Sidewall Sprinkler

Installation Wrench: Model D Sprinkler Wrench Installation Position: Upright or Pendent Approval Type: Light Hazard Occupancy

U.S. Patent No. 6,374,920

Sprinkler Type	Deflector to Ceiling Distance (Min Max.)
Upright	4" (102mm) - 12" (305mm)
Pendent	4" (102mm) - 12" (305mm)

Vertical Sidewall

Installation Data:

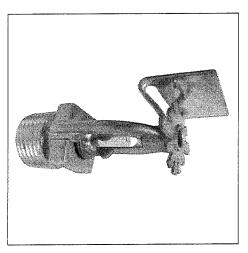
Nominal		Nominal	K Factor	Sprinkler	Approval (1)	Sprinkler
Orifice	Thread Size	บร	Metric	Height	Organizations	Identification Numbers (SIN)
½" (15mm)	½" NPT (R1/2)	5.6	8.0	2.25" (57mm)	1,2,3	RA1385(1)(2)(3)(4)

⁽¹⁾ LPC Approval is pendent only, 57°C through 141°C ratings.

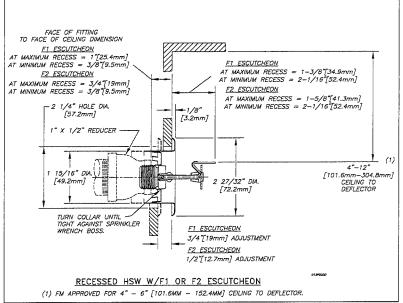
Model F156 Horizontal Sidewall Sprinkler

Deflector: HSW

Installation Wrench: Model D Sprinkler Wrench



Horizontal Sidewall



Note: For Recessed HSW Sprinklers use installation wrench GFR2. FM and cULus permits use with F1 or F2 escutcheons for "Light Hazard" only.

Installation Data: Horizontal Sidewall

Nominal Orifice		Nominal K Factor		Sprinkler Height	Approval Or	Approval Organizations	
	e Thread Size	us	Metric	1 (2017) ACOL	Light Hazard	Ordinary Hazard	Identification Numbers (SIN)
½" (15mm)	½" NPT (R1/2)	5.6	80	2.63" (67mm)	1,2	1	RA1335(1)(2)(3)(4)

⁽¹⁾ cULus Listed corrosion resistant (Polyester coated) sprinkler.

⁽²⁾ CULus Listed corrosion resistant (Polyester coated) sprinkler.

⁽³⁾ cULus Listed & FM Approved corrosion resistant for lead, wax and wax over lead.

⁽⁴⁾ Electroless Nickel PTFE (Teflon®)* Plated - cULus listed Corrosion Resistant

⁽²⁾ CULus Listed & FM Approved corrosion resistant for lead, wax and wax over lead.

⁽³⁾ Polyester coated FM approved sprinkler.

⁽⁴⁾ Electroless Nickel PTFE (Teflon®)* Plated - cULus listed Corrosion Resistant

^{*}DuPont Registered Trademark

Application

Model F156, F142, F1XLH, F128 & Model F156, F142, F1XLH & F128 Recessed sprinklers are used in fixed fire protection systems: Wet, Dry, Deluge or Preaction. Care must exercised that the orifice size, temperature rating, deflector style and sprinkler type are in accordance with the latest published standards of the National Fire Protection Association or the approving Authority Having Jurisdiction Installation.

Installation

Model F156, F142, F1XLH & F128 Series sprinklers are standard response sprinklers intended for installation as specified in NFPA 13. They must also be installed with the Model D Sprinkler Wrench specifically designed by Reliable for use with these sprinklers.

The Model F156, F142, F1XLH & F128 Recessed Sprinklers are to be installed with a maximum recess of $\frac{3}{4}$ inch (19mm). The Model F1, F2, and FP Escutcheon illustrated are the only recessed escutcheon to be used with the Model F156, F142, F1XLH & F128 Recessed Sprinklers. The use of any other recessed escutcheon will void all approvals and negate all warranties. When installing Model F156, F142, F1XLH & F128 Recessed Sprinklers use the Model GFR2 Sprinkler Wrench. Any other type of wrench may damage these sprinklers.

Note: A leak tight $\frac{1}{2}$ " NPT (R1/2) sprinkler joint can be obtained with a torque of 8-18 ft-lbs (10,8 - 24,4 N-m). Do not tighten sprinklers over maximum recommended torque. It may cause leakage or impairment of the sprinklers.

Glass bulb sprinklers have orange covers to protect the bulb during the installation process. REMOVE THIS PROTECTION ONLY AFTER THE SYSTEM HAS BEEN HYDROSTATICALLY TESTED AND, WHEN APPLICABLE, THE ESCUTCHEONS HAVE BEEN INSTALLED. RASCO wrenches are designed to install sprinklers when covers are in place.

Ordering Information

Specify:

- 1. Sprinkler Model
- 2. Sprinkler Type
- 3. Orifice Size
- 4. Deflector Type
- 5. Temperature Rating:
 - Specify when ordering
 - Model F156 Pendent Sprinkler
- 6. Sprinkler Finish
- 7. Escutcheon Finish (where applicable)

Note: When Models F156, F142, F1XLH & F128 Recessed Sprinklers are ordered, the sprinklers and escutcheons are packaged separately.

Escutcheon Data (1)

 $^{\tiny{(1)}}$ SIN: RA1335 - cULus and FM permits use with F1 or F2 escutcheons for light hazard only.

Maintenance

The Model F156, F142, F1XLH & Model F156, F142, F1X-LH & F128 Recessed Sprinklers should be inspected and the sprinkler system maintained in accordance with NFPA 25. Do not clean sprinklers with soap and water, ammonia or any other cleaning fluid. Remove any sprinkler which has been painted (other than factory applied) or damaged in any way. A stock of spare sprinklers should be maintained to allow quick replacement of damaged or operated sprinklers. Prior to installation, sprinklers should be maintained in the original cartons and packaging until used to minimize the potential for damage to sprinklers that would cause improper operation or non-operation.

Temperature Ratings

Classification	Sprinkler Temperature		Max. Ambient Temp.	Bulb Color
	°C	°F	remp.	COIOI
Ordinary	57	135	100°F (38°C)	Orange
Ordinary	68	155	100°F (38°C)	Red
Intermediate	79	175	150°F (66°C)	Yellow
Intermediate	93	200	150°F (66°C)	Green
High ⁽¹⁾	141	286	225°F (107°C)	Blue
Extra High ⁽¹⁾	182	360	300°F (149°C)	Mauve

⁽¹⁾ Not available for recessed Sprinklers.

Maximum Working Pressure

175 psi (12 bar)

100% Factory tested hydrostatically to 500 psi (34.5 bar)

Finish(1)

Standard	l Finishes
Sprinkler	Escutcheon
Bronze	Brass
Chrome	Chrome
Polvester Coated (6)(7)(9)	White Painted
Special Applic	ation Finishes
Sprinkler	Escutcheon
Electroless Nickel PTFE(Teflon®)*(3)(10) Bright Brass(2) Black Plated Black Paint(3)(9) Off White(3)(9) Chrome Dull Lead Plated(3)(4)(5)(8) Wax Coated(3)(4)(5)(8) Wax Over Lead(3)(4)(5)(8)	Electroless Nickel PTFE (Teflon®)* Bright Brass Black Plated Black Paint Off White Chrome Dull

⁽¹⁾ Other colors and finishes are available on special order. Consult factory for details, Custom color painted sprinklers may not retain their UL Corrosion resistance listing.

^{(2) 200°}F (93°C) maximum.

⁽³⁾ UL and ULC listed only.

^{(4) 155°}F to 200°F (68°C to 93°C) ratings only.

^{(5) 286°}F (141°C) sprinklers may be coated for ambient conditions not exceeding 150°F (66°C).

⁽⁶⁾ cULus listed "corrosion resistant" applies to SIN Number RA1325 (Upright) RA1323 (upright), RA1321(Upright), RA1335 (HSW), RA1385(VSW) and RA1314 (Pendent) in standard black or white. Corrosion resistance in other polyester colors is available upon request.

⁽⁷⁾ FM Approved finish as "Polyester Coated" applies to SIN number RA1314, RA1335 & RA1325 in standard black or white.

⁽⁸⁾ FM Approved finish applies only to SIN number RA1335 & RA1385.

⁽⁹⁾ LPCB and VdS Approved finish applies only to RA1325, RA1314 and RA1375.

⁽¹⁰⁾ cULus listed Corrosion Resistant applies to SIN RA1325 ,RA1314 ,RA1323, RA1313 ,RA1321, RA1311, RA1385 and RA1335



Model G4 Concealed Automatic Sprinkler

The Concealer®
A Concealed Sprinkler
With ½" (13mm) or
1½" (38mm) Adjustment

Features

- 1. Cover plate assembly attachment (Plain or Perforated) with ½" (13mm) adjustment. Does not require clips or springs.
- 2. 1½" (38mm) Total adjustment provided by adjustable inlet versions.
- Adjustable inlet version available with either
 NPT male or female threads eliminating costly reducing coupling.
- 4. Smooth aesthetic ceiling profile.
- 5. Available in white or other color painted or brass, chrome, or black plated finishes.
- 6. Ordinary and intermediate temperature ratings.
- 7. Multiple orifices for design flexibility.

Approvals & Listings

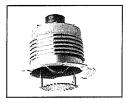
- 1. Underwriters Laboratories Inc. (UL)
- 2. Underwriters Laboratories of Canada. (ULC)
- 3. N.Y.C. BS&A No. 587-75-SA.

Note: Approvals are for light and ordinary hazard, except for small orifice sprinklers which are limited to light hazard occupancies. The cup and skirt are fabricated from plated steel and are intended for interior non corrosive applications.

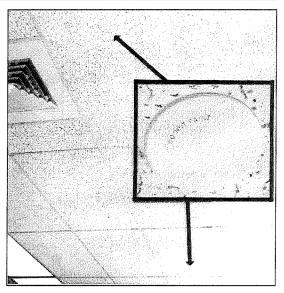
U.S. Patent No. 4,880,063.

Application

The Reliable Model G4 Concealer® is the most versatile concealed sprinkler available. It provides the best form of fire protection while offering an attractive appearance



and $\frac{1}{2}$ " (13mm) of cover adjustment for ease of installation. The adjustable 1" NPT inlet versions have $\frac{1}{2}$ " (38mm) of total adjustment and also eliminates the need for a reducing coupling. The small diameter cover plate assembly is easily attached and blends into the ceiling, concealing the most dependable fire protection available, an automatic sprinkler system.



The Concealer® is designed for use where aesthetic appearance is important. Offices, hospitals, motels and restaurants are but a few of the applications where it can be used. It is available in different orifice sizes allowing the designer to optimize system performance, thereby achieving a most efficient installation.

The Concealer® can eliminate the need for precise cutting of drop nipples. The cover plate assembly can be adjusted without tools so it mates accurately with the ceiling. The fire protection system need not be shut down to adjust or remove the cover plate assembly.

Product Description

The Reliable Model G4 Concealer® standard response uses the proven Model G fusible element in a standard style sprinkler frame with a drop-down deflector. This assembly is recessed into the ceiling and concealed by a flat cover plate. This threaded engagement provides ½" (13mm) of cover adjustment. The flat cover plate is attached to the skirt using an ordinary temperature classification solder. This results in a strong cover plate assembly with an ordinary temperature rating, and an intermediate temperature sprinkler which can be installed in 150°F (66°C) environments. When the ceiling temperature rises, the solder holding the cover plate to the skirt melts, the flat cover plate released thus exposing the sprinkler inside to the rising ambient temperature.

The subsequent fusing of the sprinkler element opens the waterway and causes the deflector to drop into position to distribute the discharging water. Any secure engagement of the threads between the cover plate and cup will assure that the drop—down deflector is properly located below the ceiling when a sprinkler operates.

The Reliable Automatic Sprinkler Co., Inc., 103 Fairview Park Drive, Elmsford, New York 10523

Installation

Do not install The Concealer® in ceilings which have positive pressure in the space in the space above.

After a 25/8 inch diameter hole is cut in the ceiling, the sprinkler is to be installed with the Model G4 Wrench. The wrench has drive tangs which insert into cup slots. When installing a sprinkler the wrench is first positioned into the sprinkler/cup assembly until the wrench tangs engage drive slots in the top of the cup (there are two sets of mating drive slots in the cup). The sprinkler is then tightened into the pipe fitting. When inserting or removing the wrench from the sprinkler/cup assembly care should be taken to prevent damage to the sprinkler. DO NOT WRENCH ON ANY OTHER PART OF THE SPRINKLER/CUP ASSEMBLY.

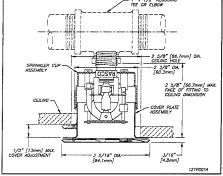
The adjustable inlet versions are similar to the standard Model G4 except that an addition 1" (25mm) of adjustment is provided by means of a telescoping inlet section that threads in or out of a stationary coupling reducer (either 1 male or 1 female) as shown in Fig. 2 or Fig. 3. These sprinklers must be installed before the ceiling is in place, by wrenching on only the coupling reducer hex flats. After the ceiling has been installed with holes for the sprinkler, each telescoping inlet sec-

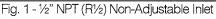
Temperature Ratings

Classification	Sprinkler	Cover Plate	Max. Ambient Temp.
Ordinary	135°F/57°C	135°F/57°C	100°F/38°C
Ordinary	165°F/74°C	135°F/57°C	100°F/38°C
Ordinary	165°F/74°C	165°F/74°C	150°F/66°C
Intermediate	212°F/100°C	165°F/74°C	150°F/66°C

Installation Data

Sprinkler Inlet	Total Adjustment	Nominal Orifice		ninal actor Metric	Thread	Approvals	Sprinkler Identification
			03	Merric			Number (SIN)
Non-Adjustable	½" (13mm)	½" (15mm)	5.6	80	½" NPT (R½)	1,2,3	R2115
Non-Adjustable	½" (13mm)	⁷ /16" (11mm)	4.2	60	½" NPT (R½)	1,2,3	R2113
Non-Adjustable	½" (13mm)	³ /8" (10mm)	2.8	40	½" NPT (R½)	1,2,3	R2111
Adjustable	1½" (38mm)	½" (15mm)	5.6	80	1" NPT Male or Female	1,2,3	R2118
Adjustable	1½" (38mm)	⁷ /16" (11mm)	4.2	60	1" NPT Male or Female	1,2,3	R2113
Adjustable	1½" (38mm)	³⁄s" (10mm)	2.8	40	1" NPT Male or Female	1,2,3	R2112





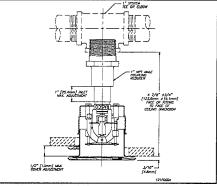


Fig. 2 - 1" NPT Male-Adjustable Inlet

tion is to be adjusted with the G4 Wrench. Install the cover plate assembly by hand turning it clockwise until it is tight against the ceiling.

Maintenance

The Model G4 Concealer® should be inspected and the sprinkler system maintained in accordance with NFPA 25. Do not clean sprinklers with soap and water, ammonia or any other cleaning fluids. Remove any sprinkler that has been painted (other than factory applied) or damaged in any way. A stock of spare sprinklers should be maintained to allow

quick replacement of damaged or operated sprinklers. Prior to installation, sprinklers should be maintained in the original cartons and packaging to minimize the potential for damage to sprinklers that would cause improper operation or non-operation.

Ordering Information

- Sprinkler Model
- 2. Temperature Rating
- 3. Nominal Orifice
- 4. Flat Cover Plate Finish
- 5. Inlet Type

Note: Unless otherwise specified, the 165°F (74°C) sprinkler will be provided with the 165°F (74°C) cover. Cover Plate Finishes(1)

Standard Finishes Chrome

White Paint Special Application Finishes⁽²⁾

Bright Brass Finished Bronze Black Plating Black Paint Off White Satin Chrome

- Other finishes and colors are available on special order. Consult factory for details. Coverplate custom paint is semi-gloss, unless specified otherwise.
- (2) For the perforated style coverplate, consult factory for availability on these and other custom finishes.

Note: Paint or any other coatings applied over the factory finish will void all approvals and warranties.

Installation Wrench

Model G4 Sprinkler Wrench

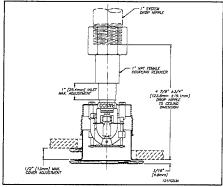


Fig. 3 - 1" NPT Female-Adjustable Inlet

The equipment presented in this bulletin is to be installed in accordance with the latest published Standards of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable.

Products manufactured and distributed by Reliable have been protecting life and property for over 90 years, and are installed and serviced by the most highly qualified and reputable sprinkler contractors located throughout the United States, Canada and foreign countries.

Manufactured by



The Reliable Automatic Sprinkler Co., Inc.

(800) 431-1588 (800) 848-6051 (914) 829-2042

(914) 829-2042 Corporate Offices www.reliablesprinkler.com Internet Address

Sales Offices
Sales Fax
Corporate Offices



Revision lines indicate updated or new data.

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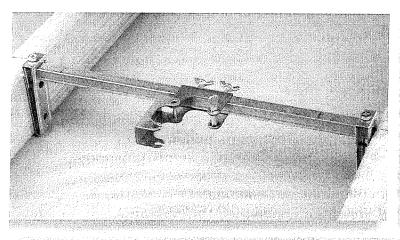
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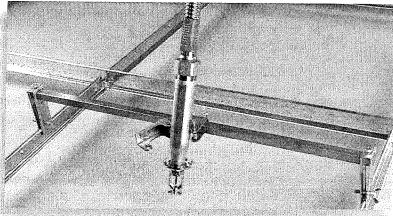
Sprinkflex

COMMERCIAL FIRE SPRINKLER CONNECTIONS
Product Submittal

A PART OF







Series SFN Unbraided Flexible Hose Assemblies



Series SFB Braided Flexible Hose Assemblies APPROVED LISTED





SprinkFLEX Stainless Steel Sprinkler Fittings connect the branch line to the sprinkler using a flexible stainless steel hose and reducer. The flexible stainless steel hose and fittings are intended for direct connection to the sprinkler and are particularly suited for use in suspended and hard ceiling applications. Each drop assembly comes with one stainless steel flexible hose, one branch line connection nipple, one sprinkler reducing nipple and bracket system.

SYSTEM OPTIONS

- · Pre-assembled, ready to install, unbraided and braided flexible stainless steel hose lengths: 28" (700mm), 40" (1000mm), 48" (1200mm), 59" (1500mm), 71" (1800mm)
- 1/2" and 3/4" outlet fittings for connecting sprinkler
- Pre-assembled, ready to install mounting bracket available in 24" and 48" long
- Mounting bracket allows the sprinkler to be locate anywhere within the ceiling with reference marks in the center for ease of installation without the need for measuring.
- Optional factory installed sprinkler head.

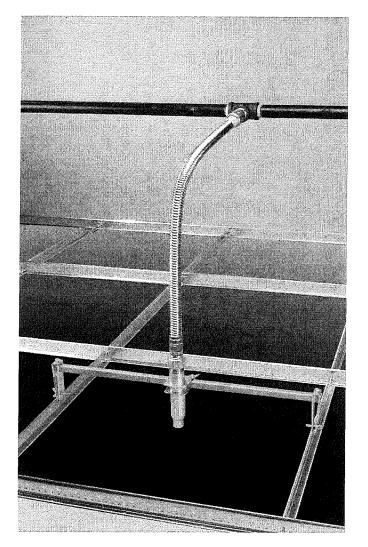
TECHNICAL DATA

- Maximum Working Pressure: 200 psi (1375 kPa)
- Maximum Ambient Temperature: 300° F (149°C)
- Connection to Branch Line: 1-inch NPT
- Minimum Bend Radius of Flexible Stainless Steel Hose:
 - 3 inches (76.2 mm) per UL Listing
 - 8 inches (203.2 mm) per FM Approval

The flexible stainless steel hose should not be bent within 21/2 inches (64 mm) of the connection nut at both ends.

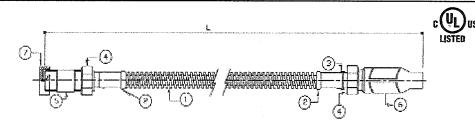
- UL Maximum K-Factor of Sprinkler to be connected to Sprinkler Reducing Nipple:
 - 1/2 inch outlets: 8.0 3/4 inch outlets: 11.2
- FM Maximum K-Factor of Sprinkler to be connected to Sprinkler Reducing Nipple:
 - 1/2 inch outlets: 5.6
- 3/4 inch outlets: 8.0 Listings and Approvals:
 - Unbraided models are UL Listed

Braided models are FM Approved and UL Listed



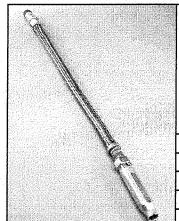
FLEXIBLE HOSE - NON BRAIDED

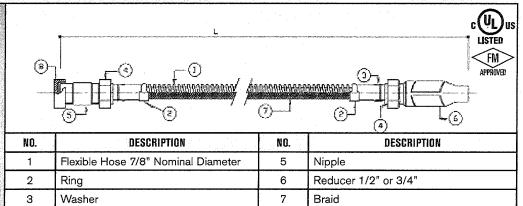




				1
NO.	DESCRIPTION	NO.	DESCRIPTION	
1	Flexible Hose 7/8" Nominal Diameter	5	Nipple	
2	Ring	6	Reducer 1/2" or 3/4"	
3	Washer	7	Plastic Cap	
4	Slip Nut			

FLEXIBLE HOSE - BRAIDED

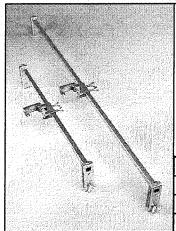


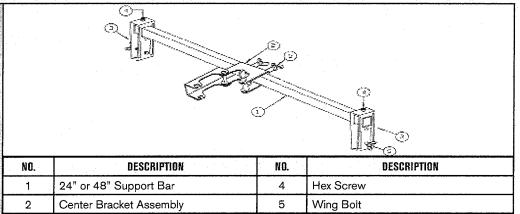


8

Plastic Cap

BRACKET ASSEMBLY





MATERIAL SPECIFICATIONS

Corrugated Flexible Hose: SS304	Support Bar: 690 Galvanized Steel
SEAL: EPDM	Glamp and Center Bracket Assembly: 690 Galvanized Steel
SLIP NUT AND NIPPLE: Zinc-Plated Carbon Steel	Hex Screw and Wing Bolts: Zinc-Plated Carbon Steel
Slip Nut and Nipple: Zinc-Plated Carbon Steel	Optional Tamper-Resistant Screw: Zinc-Plated Carbon Steel
BRAID AND BRAID RING: SS304	

Slip Nut

3

Clamp

FRICTION LOSS DATA

UNBRAIDED HOSE UL LISTED

MODEL	INLET & OUTLET SIZE NPT INCH	LENGTH INCH (mm)	NUMBER OF 90 Degree Bends	UL LISTED – Unbraided hose maximum equivalent Length of SCH 40 1 inch diameter PIPE (C=120), FT
SFN28H	1 x 1/2	28" (700mm)	2	22
SFN28T	1 x 3⁄4	28" (700mm)	2	28
SFN40H	1 x 1/2	40" (1000mm)	3	39
SFN40T	1 x 3⁄4	40" (1000mm)	3	54
SFN48H	1 x 1/2	48" (1200mm)	3	56
SFN48T	1 x 3⁄4	48" (1200mm)	3	63
SFN59H	1 x 1/2	59" (1500mm)	3	59
SFN59T	1 x 3⁄4	59" (1500mm)	3	74
SFN71H	1 x 1/2	71" (1800mm)	3	67
SFN71T	1 x 3/4	71" (1800mm)	3	74

^{*}Series SFN models are unbraided/Series SFB models are braided

BRAIDED HOSE FM APPROVED AND UL LISTED

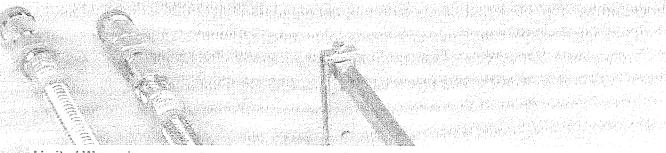
MODEL	INLET & OUTLET Size NPT INCH	LENGTH INCH (mm)	UL NUMBER OF 90 DEGREE BENDS	UL-BRAIDED HOSE MAXIMUM Equivalent length of SCH 40 1 inch diameter Pipe (C=120), FT	FM Number of 90 Degree bends	FM-BRAIDED HOSE Maximum Equivalent Length of SCH 40 1 Inch Diameter Pipe (C=100), Ft
SFB28H	1 x 1/2	28" (700mm)	2	22	1	46.4
SFB28T	1 x 3⁄4	28" (700mm)	2	28	1	39.1
SFB40H	1 x 1/2	40" (1000mm)	3	39	1	53.9
SFB40T	1 x 3/4	40" (1000mm)	3	54	1	45.3
SFB48H	1 x 1/2	48" (1200mm)	3	56	2	73.4
SFB48T	1 x 3/4	48" (1200mm)	3	63	2	64.3
SFB59H	1 x 1/2	59" (1500mm)	3	59	3	89.9
SFB59T	1 x 3⁄4	59" (1500mm)	3	74	3	86.5
SFB71H	1 x 1/2	71" (1800mm)	3	67	4	112.8
SFB71T	1 x 3⁄4	71" (1800mm)	3	74	4	104.9

BRAIDED HOSE WITH ELBOW - FM APPROVED

MODEL	INLET & OUTLET SIZE NPT INCH	LENGTH INCH (mm)	UL NUMBER OF 90 DEGREE BENDS	FM NUMBER OF 90 DEGREE BENDS	FM-BRAIDED HOSE Maximum Equivalent Length of SCH 40 1 Inch Diameter Pipe (C=120), Ft
SFB28H – E	1 x 1/2	28" (700mm)	2	1	48.4
SFB28T – E	1 x 3⁄4	28" (700mm)	2	1	41.1
SFB40H – E	1 x 1/2	40" (1000mm)	3	1	55.9
SFB40T - E	1 x 3/4	40" (1000mm)	3	1	47.3
SFB48H – E	1 x 1/2	48" (1200mm)	3	2	75.4
SFB48T – E	1 x 3/4	48" (1200mm)	3	2	66.3
SFB59H – E	1 x 1/2	59" (1500mm)	3	3	91.9
SFB59T - E	1 x 3/4	59" (1500mm)	3	3	88.5
SFB71H – E	1 x 1/2	71" (1800mm)	3	4	114.8
SFB71T – E	1 x 3/4	71" (1800mm)	3	4	106.9

^{*}Unbraided hoses are UL Listed

^{*}Braided hoses are FM Approved and UL Listed



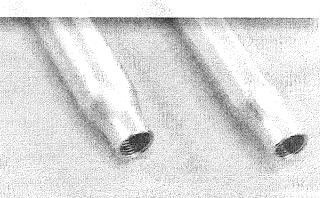
Limited Warranty

SprinkFLEX LLC warrants that its products will be free from defects in materials and workmanship under normal conditions of use and service for a period of one year from date of sale. Our obligation under this warranty is limited to repairing or replacing any product that is returned to us with transportation charges prepaid within one year after the date of original sale and that our examination shows to our satisfaction to have been defective in materials or workmanship under normal conditions of use and service. The decision as to whether to repair or to replace any product shall be made by us, and any repair shall be made at our facility. Notwithstanding the foregoing, the following are specifically excluded from the coverage of this warranty:

- (a) the sprinkler head of any SprinkFLEX LLC product, but SprinkFLEX LLC hereby assigns to the original purchaser of any such product the right to enforce the warranty, if any, issued by the manufacturer of such sprinkler head:
- (b) defects resulting from ordinary wear and tear, of any SprinkFLEX LLC. Product;
- (c) products that have been altered in any manner by the buyer or by anyone other than SprinkFLEX LLC.;
- (d) products that have been subjected to misuse, abusive use, or damage by accident or casualty;
- (e) products that have been installed or used in a manner contrary to our specifications, instructions or recommendation;
- (f) products that have been installed or used in a manner that is not in compliance with all applicable requirements of any code, law, regulation or rule of any federal, state or local governmental or industry authority; and
- (g) products that have not been inspected and maintained in accordance with our specifications, instructions or recommendations, including, without limitation, our recommendations as to following the inspection and maintenance standards published by the National Fire Protection Association (NFPA); and
- (h) products that have been affected by Microbiologically Influenced Corrosion (MIC).

This warranty is not assignable and shall benefit only the original purchaser of a SprinkFLEX LLC product. If any provision hereof or any portion of any provision shall be held invalid, the remainder of this Limited Warranty shall not be affected thereby, and all provisions of this Limited Warranty shall remain valid and in full force and effect to the fullest extent permitted by law.

THIS WARRANTY IS IN LIEU OF ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY AND WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. NOTWITHSTANDING ANY PROVISION TO THE CONTRARY HEREIN OR ANY APPLICABLE LAW TO THE CONTRARY, IN NO EVENT SHALL SPRINKFLEX LLC. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES UNDER ANY CIRCUMSTANCES WHATSOEVER, WHETHER ARISING FROM ANY BREACH OF THIS LIMITED WARRANTY OR OTHERWISE ARISING FROM OR IN CONNECTION WITH THE USE OR OPERATION OF, OR ANY DEFECT IN, ANY SPRINKFLEX, LLC. PRODUCT, OR OTHERWISE. The risk of damages from any breach of warranty with respect to injury to any person will be born by the purchaser of SprinkFLEX LLC.



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Sprinkalsx (GPTECT)

